CLEAN IT UP AND MAKE IT SAFE
THE ROCKY FLATS CONCEPTUAL VISION - A FOCUS FOR ACTION

I. INTRODUCTION

The Principals have agreed to the following draft conceptual Vision (hereinafter referred to as "Vision") which will be used to help guide the future direction of the Rocky Flats Environmental Technology Site (Site). The Vision focuses on all actions at the Site including cleanup, plutonium consolidation, safety, physical plant conversion and land use. There are two phases of the Vision (hereinafter the term "Vision" will refer to both the intermediate and final site conditions unless specific reference is made to the intermediate or final site condition):

- Intermediate Site Condition: This phase describes the Site's condition at the completion of all major environmental remediation, decontamination and decommissioning and all other DOE activities - except removal of the remaining special nuclear materials (mostly plutonium) and containerized waste stored in buildings on-site. During the intermediate phase, as discussed in detail below, most of the buildings will have been demolished, and Plutonium and some wastes will be stored on site.

- Final Site Condition: This phase describes the Site's condition after removal of all stored special nuclear materials and containerized wastes and completion of all DOE activities - except those related to the long-term care and maintenance of waste that may remain at the site in landfills.

A premise underlying the final Vision is that all stored plutonium and other special nuclear materials will have been removed from the Site by the target date of the year 2015. In addition, no DOE-operated building will remain at the Site. The only buildings that may remain will have been converted to new industrial activities operated and supported by others. Fundamentally, the Vision contemplates that, in a much shorter time frame than has previously been planned, DOE will clean up the Site consistent with the future projected land and water uses and will make the Site safe first by stabilizing and consolidating and then by removing plutonium. Finally, the Vision does not preclude further waste treatment or removal of waste in the event that conditions change significantly.

The Vision provides for the division of the Site into five areas, as reflected in the attached map (more detailed discussion of the five areas delineated on the map is included in section V. Final Site Condition below). The major difference between the Intermediate Site Condition and the Final Site Condition is that there may still be plutonium and transuranic wastes stored at the Site during the Intermediate Site Condition.

By focusing DOE's and its regulators' efforts properly, the Site can achieve sound safety and environmental results sooner than previous projections, even in this era of limited government resources. And, by obtaining community agreement on a Vision, the parties will be able to move towards its achievement more quickly.

II. KEY ASSUMPTIONS

The principals have developed this Vision with the acknowledgment of some guiding assumptions. These assumptions are based on a recognition of the fiscal constraints and political difficulties in dealing with the types of wastes, materials and issues at the Site. These assumptions also acknowledge the public input received to date regarding the future of the Site (see, for example, the Future Site Use Working Group and the fuller description of efforts consulted in section VI. Resources below). Specifically, the key assumptions that underlie this Vision of a safe and remediated Site are as follows:

(1) Plutonium and other Special Nuclear Materials (SNM) that now exist on Site

* The Principals agree that, since no alternative storage or disposal site for SNM presently exists, DOE must store the SNM on-site safely until an alternative location becomes available. DOE will not transfer onto the Site any additional plutonium. Our goal is to remove the plutonium and SNM no later than 2015.

(2) All wastes (except SNM)

* Since there are substantial costs and risks inherent in moving all waste now stored on-site and those wastes that will be generated during plutonium stabilization, cleanup and building decommissioning, DOE, together with the regulators and with appropriate public participation, will decide how to

divide the wastes between those that go on- and off-site through an on-going process that is consistent with the precepts set forth in this Vision.

- Waste that remains on-site will be managed safely and, if future technology and finances permit, may be retrieved and removed at a later date. DOE will not import substantial [1] quantities of waste onto the Site either for treatment or disposal.

(3) Land Use and Cleanup Standards

- Recognizing the financial and technical limitations in returning the Site to a pristine condition, the Principals endorse the selection of cleanup standards that will achieve reasonably anticipated land and water uses.

III. SUMMARY OF CLEANUP STRATEGY TO ACHIEVE THE VISION

The intermediate and final site conditions (see sections IV. and V. below) describe the general condition of the Site at those stages in the implementation of the Vision. This section summarizes the underlying principles that will be followed during the cleanup of the Site to reach the final site condition. Specifically, as the cleanup occurs, the Vision is premised on the following elements:

- The recognition of community preferences for land use at the site
- The logic that cleanup standards will protect reasonably foreseeable future land and water uses
- The practical consideration that some contamination will remain at the Site
- The recognition that soil, surface water, groundwater, and building cleanup needs are interrelated

With regard to the specific cleanup strategies, the Principals agree to the following:

1. Land use and soil cleanup. Soil cleanup will make the land safe for industrial use and open space (in Areas 1-4 on the attached map), and will protect ground water and surface water. Soil remediation strategies will include such things as soil removal, soil treatment and soil consolidation.

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[1] Very small quantities (a few drums) of waste may be imported from other sites in unusual circumstances. For example, Rocky Flats plans to accept the return of less than one drum of Rocky Flats waste previously shipped to Savannah River.

2. Ground water use and cleanup standards. Ground water cleanup will protect surface water. Ground water management and remediation strategies will include such things as source removal, treatment, containment, and hydrologic gradient management. No use of on-site ground water will be allowed so as to protect the hydrologic gradients (to minimize horizontal and vertical migration of contaminants) and to preserve the open space character of the land. Nevertheless, ground water quality off-site and in Area 3 will be protective for all uses.

3. Surface water use and cleanup standards. Similarly, surface water cleanup will protect the specified uses of the surface water. This includes being protective of the ecology in Area 2. In Area 3 and off-site, surface water will be protective of all uses. (As a factual matter, surface water down-stream from the site is being diverted around the public water supply reservoirs so that surface water crossing the Site will not affect domestic water supplies. Accordingly, the surface water crossing the Site could be reclassified for aquatic and recreational uses, and not for water supply.)

4. Decision Criteria. DOE will eliminate, treat, consolidate, contain and manage contaminated soils, water and materials in a manner that reduces the impact to natural resources and that protects and supports reasonably anticipated future land and water uses. A combination of factors including technical feasibility, cost, worker safety (risk of doing cleanup), risk reduction, opportunity for off-site disposal, future land use and effectiveness will form the basis for determining which wastes remain on-site.

5. Other considerations. In general, cleanup levels for soil, ground water surface water and buildings will also be designed to minimize vertical and horizontal migration of contamination. Because some waste will remain on-site in Area 0, and there may be residual contamination in Areas 1, 2 and 4, long-term care for the Site will be required. As a result, the issue of long-term ownership of the Site remains unresolved.

IV. INTERMEDIATE SITE CONDITION

As noted above, this Vision is based on the completion of two phases: an intermediate site condition and a final site condition. The Principals agree to the following description of the intermediate phase of site condition:

- Safe stable storage will be created for plutonium and containerized waste. Plutonium includes all accountable special nuclear materials and building holdup (such as plutonium that is removed from ventilation ducts) removed from the buildings. The plutonium will be in a form to accommodate the earliest

possible shipment from the Site. Containerized waste includes transuranic, and transuranic mixed wastes removed from buildings. This storage will be in safe configuration and will be technically and economically viable for long term storage, if necessary.

- Most buildings, except those needed to store plutonium and containerized wastes and those with clear, alternative economic value and use, will be demolished and/or covered.

- To the extent possible, there will be no visible reminder of the Site's past, except that two buildings will remain for plutonium and waste storage.

- Major environmental cleanup activities will be complete except in those areas unavailable because of on-going storage. (When the storage mission is complete, DOE will then complete any environmental cleanup remaining in those areas.)

- There will be minimal infrastructure left in place at the Site.

- The projected working population associated with DOE activities will drop to less than 500 from the current figure of more than 5000.

- The annual operating cost should be less than $60 million, down from more than $600 million today.

V. FINAL SITE CONDITION

The final site condition is characterized by five areas as delineated in the attached map. The Principals agree to the following components for each of the five areas:

Area 0: Landfills (Including Protected Area Cap)

- There will be three or four capped areas left on Site: one or both of the existing landfills, the 800 area and what is now the "protected area" to the north of Central Avenue.

- There will be on-site, long-term disposal of some wastes in an area potentially covering 100 acres in the "protected area." DOE will consolidate all wastes left on site in landfills or in the existing Industrial Area. DOE will cap the landfills and there will be no use of ground or surface water for any purpose in Area 0.

DOE will divert storm water runoff consistent with normal storm water management standards and will monitor and control ground water to prevent migration and preserve the integrity of the landfills. Ongoing maintenance of ground and surface water control systems will continue as necessary.

- The landfills will be capped using a low profile designed to blend in with the topography. These landfills may contain low level, low level mixed, hazardous or solid wastes in the form of demolition debris and cleanup wastes, as well as process wastes if required.

- Below the caps in the 800 and protected areas, there will be three types of material: cleanup or other waste contained within a waste disposal cell, residual contaminated soils or materials (for example, buried pipes) left in place, and buildings, either alone or with waste inside.

- DOE will have removed all transuranic and transuranic mixed waste to a safe, on-site storage facility until they can be shipped off-site.

- Low level and low-level mixed waste standards will apply to cleaning the buildings and equipment prior to their demolition or covering; thus, low level mixed waste will be removed from a building before its demolition unless the building meets appropriate waste isolation performance criteria. Methods chosen for demolishing and disposing of buildings will be protective of human health and the environment. Low level and low-level mixed waste generated as a result of cleanup and decontamination activities will be disposed of in a specific cell or in buildings being covered under the cap. The current on-site inventory of low level and low level mixed waste (except ponderete) will be removed from the buildings and disposed of on- or off-site, subject to public input, cost-benefit analysis, and other considerations.

Area 1: Potential Industrial Use (Current Industrial Area)

- Land in Area 1 will be available for future industrial use. DOE will clean up Area 1 to levels protective of surface water and reasonably expected human exposure in an industrial setting. There will be no surface or ground water use for any purpose. In addition, similar to Area O, DOE will divert or otherwise control storm water as required by best management practices. DOE will monitor and control ground water to minimize horizontal and vertical migration of contaminants so as to protect land and water uses.

Area 2: Open Space (Inner Buffer Zone)

- Land use in Area 2 will be open space. Use of surface water will be for ecologic purposes. (While these uses are less restrictive than the existing water supply classification, the Principals recognize that the Site's surface waters are now being diverted around public water supplies and are therefore, not a water supply.) There will be no ground water use for any purpose.

- The standards to govern cleanup in Area 2 will be selected to protect surface water, the ecosystem, and reasonably expected human exposure in an open space setting. These cleanup levels will support open space use; however, access may be limited based on policy considerations. This Area is bounded on the North and South by Walnut and Woman Creeks, respectively. These Creeks bound the contaminated areas and form hydrologic barriers to contaminant migration. Several of the existing ponds in the Creeks (with or without the earthen dams) may remain to enhance and preserve ecologic values, but no ponds will remain as part of the Site's wastewater treatment system.

Area 3: Open Space (Outer Buffer Zone)

- Land use in Area 3 will be open space. This area is uncontaminated so no cleanup is necessary. DOE mission activities did not affect much of this acreage. Both the surface water (in the Creeks) and the ground water quality could support any uses. However, open space use limits access to water, and no ground water pumping in Area 3 will be allowed that could affect contaminant migration in Areas 0, 1 or 2.

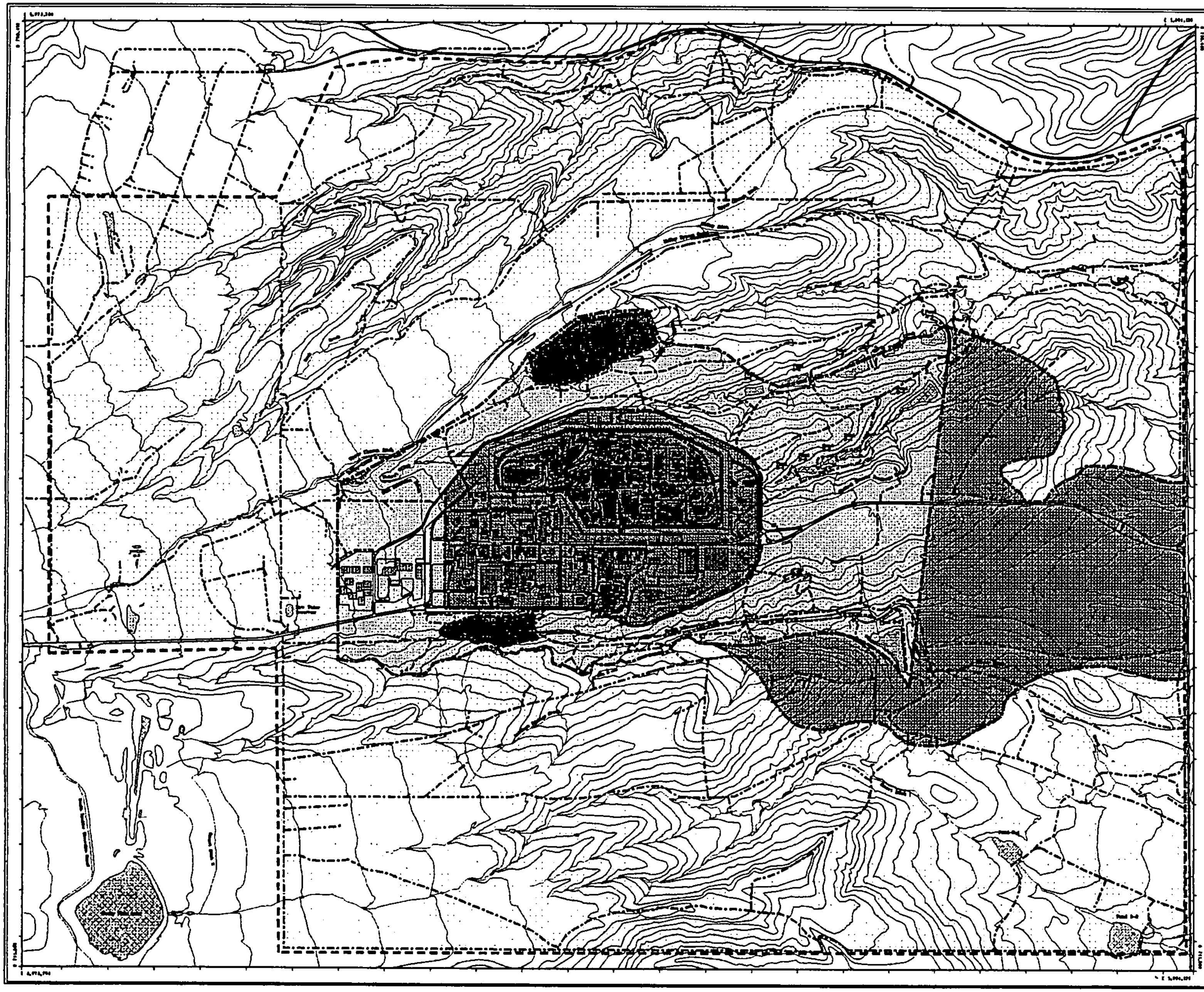
Area 4: Open Space (Residual Plutonium Soil Contamination)

- The land use in Area 4 will be open space. Residential use is not contemplated and this Area will not now support residential use due to plutonium contamination of surface soils. The quality of the surface water in the Creeks that bound this area will support unrestricted use; the ground water quality will also support any future use. The decision to clean this area up, and the selection of soil cleanup standards, will be made depending on technology, ecologic risk or damage, worker risk, potential for re-mobilization of plutonium in the air, soil or water, and the availability of a suitable disposal facility.

VI. RESOURCES

The preceding proposed Vision for the Rocky Flats Environmental Technology Site is a compilation and merger of several past and current efforts including:

- March 1995 Stakeholder Summit
- The Rocky Flats Local Impacts Initiative's Future Site Use Working Group product, "Future Sites Use Recommendations For the Rocky Flats Environmental Technology Site"
- The Quality Action Team (QAT) document, "RFETS Objectives for the Year 2000"
- The QAT recommendation in the Sept. 11, 1995 "RFCA Issues Briefing Document"
- RFFO's working draft describing future use options for RFETS, Draft Future Use Vision Document
- 9/30/95 draft "Accelerated Site Action Project" (ASAP) for RFETS
- Discussion and agreement during the Work Out Session held October 10-11, 1995 by RFFO, DOE Headquarters, Colorado's Lt. Governor, CDPHE, EPA and EPA Region VIII.



Conceptual RFETS Vision

Explanation of Future Conditions

- Area 3- Outer Buffer Zone (4477 Acres)
- Area 4- Low-level Pu Soil Contamination, surface only (586 Acres)
- Area 2- Inner Buffer Zone (719 Acres)
- Area 1- Industrial Area (260 Acres)
- Area 0- Closed Landfills (53 Acres)
- Area 0- Cap (130 Acres)

NOTE:
Further data on each area is contained in "Rocky Flats Conceptual Vision - A Focus For Action"

Standard Map Features

- Buildings or other structures
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences
- Contours (20' Intervals)
- Rocky Flats boundary
- Paved roads
- Dirt roads

DATA SOURCE:
Buildings, roads, and fences provided by Facilities Engr., EG&G Rocky Flats, Inc. - 1991.
Hydrology provided by USGS - (date unknown)

500 0 1000 2000Ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site
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